

ABSTRACT

An access contention scheme having both multi-level priorities and a contention-free access indicator for use by a station in a network of stations. When a contention control indicator is detected for a contention period, a station having a frame to transmit determines from the contention control indicator if it is permitted to contend for access to the transmission medium during the contention period. The station determines if the contention control indicator indicates a contention-free access and, if the contention control information indicates a contention-free access, the station determines if a channel access priority level associated with the frame to be transmitted is higher than a channel access priority level associated with a last transmitted frame. If the channel access priority level associated with the frame to be transmitted is higher, the station detects whether any station in the network of stations intends to contend for access to the medium at a channel access priority level that is higher than the channel access priority level associated with the frame to be transmitted. If so, the station defers contention for access. Each station listens for channel access priority levels of other stations and may signal its own channel access priority level during a priority resolution period preceding the contention period. The channel access priority is signaled as a two bit value and the priority resolution period includes two priority resolution slots corresponding to the two bit value and is used to separate higher channel access priority values from lower channel access priority values.

20067807.doc